

Precharging the Write Path of an MRAM Device for Fast Write Operation

ABSTRACT OF THE DISCLOSURE

The write path of an MRAM device is precharged before starting a write operation of a magnetic memory cell, increasing the speed of the write operation and decreasing the write cycle time. The reference wires are precharged, which provides better control over the wordline and bitline write pulses and results in shorter rise times. The precharge time can be hidden in the address decoding time or redundancy evaluation time. A circuit design for a global reference current generator is also described herein. A fast on circuit is also disclosed that increases the speed of precharging the reference wires.